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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,369	03/16/2004	John Michael Lake	RSW920040039US1	3169

  

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EXAMINER	
KHATRI, ANIL	

  

ART UNIT	PAPER NUMBER
2191	

  

NOTIFICATION DATE	DELIVERY MODE
05/22/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

RSWIPLAW@us.ibm.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/801,369	<b>Applicant(s)</b> LAKE, JOHN MICHAEL	
	<b>Examiner</b> Anil Khatri	<b>Art Unit</b> 2191	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/16/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;

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(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-19 are rejected under 35 USC 101 because they disclose a claimed invention that is an abstract idea as defined in the case *In re Warmerdam*, 33, F 3d 1354, 31 USPQ 2d 1754 (Fed. Cir. 1994).

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*Analysis:* Claims 1-19 disclosed by the applicant as being a “method for determining software complexity..”. Since the claims are each a series of steps to be performed on a computer the processes must be analyzed to determine whether they are statutory under 35 USC 101.

Examiner interprets that the claims 1-12 are non-statutory because they do not disclose that how a method will carry out indented functionality and how this will be processed without incorporating a processor, memory and medium. Therefore, claims 1-12 are not able to produce useful and its functionality can't be realized. Thus claims 1-12 are non-statutory and rejected under 35 USC 101.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: executing, storing, displaying etc. Further, applicant does not. Cite how complexity of software is determined since no steps are include for storing, logging etc to visualize the what has been determined for complexity.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by *Carrier III et al*  
USPN 5,960,196

Regarding claims 1, 7-12 and 18-19

*Carrier III et al teaches,*

determining a plurality of versions of software whose complexity is to be found (figures 9-11, column 7, lines 12-25, FIG. 11 shows that a software release control system 400 may also be accessed from a site 410 located remotely from system 400. Software release control system 400 includes a load builder 401, a defect tracker 402, and a database 403, which stores a number of files as described above in conjunction with FIG. 1. A version control subsystem 404 having a database storing source files 405 is coupled to system 400. A workstation 406 may also be coupled to system 400 to provide administrator access thereto. At remote site 410, a second version control subsystem 411 storing source files 412 generated and/or maintained by software engineers at remote site 410 is provided. Version control subsystem 411 is coupled to developer workstations, personal computers, and other suitable tools 416 which facilitate code development;

compressing each of the versions, to provide compressed versions (figures 2 and 11, column 3, lines 62-67, column 4, lines 1-15, ; FIGS. 2A and 2B is a flowchart describing the process of software release control 100. References may also be made to various system components shown in FIG. 1 and to the diagram in FIG. 3 providing an illustration of the process. A user, typically a software engineer engaged in the development, modification, or testing of software

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code, logs into system 10 and selects a software product from a displayed list of existing or developing software products, as shown in block 102. If the source module that the engineer desires to work on is already checked into version control subsystem 12, then it is checked out therefrom, as shown in block 104. The engineer then codes or modifies the source module, as shown in block 106. At the end of the work session, the source module is checked back into version control subsystem 12 in block 108. When a source module is checked into version control subsystem 12, a trigger sends check-in data to software release control system 10, as shown in block 110. This check-in process is shown in FIG. 3, where source modules 160 are checked into version control subsystem 12 and causing triggers to be invoked and received by software release control system 10.

finding lengths of the compressed versions (column 3, lines 30-53, Software release control system 10 includes a number of tools, including a load builder 30 and a defect tracker 32. A number of files or databases are also included for storing a variety of data: check-in data 40, approved files 42, deferred files 44, submitted files 46, load list 50, and build report 52.

Check-in data database 40 stores records associated with source modules that have been checked into version control subsystem 12. Check-in data 40 may include the developer's name, file name, check-in number, product, release, check-in time, total number of lines, number of lines changed, etc. Approved files database 42 stores data associated with source modules that have received approval for inclusion into a build, while deferred files database 44 stores data associated with source modules that have been denied inclusion into a build. Submitted files database 46 stores data associated with those source modules that have been attached to release forms. Release forms are logical groupings of source module collected

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and submitted for the build process. Load list file 50 contains a list of built modules and third party software that have been identified to go onto deliverable media. The load list is used during generation of the deliverable media. Build report database 52 stores data generated from the load building process. Hard copy reports may then be generated from data stored in build report database 52. ; and

comparing the lengths of the compressed versions to provide a software complexity metric (figure 12, column 7, lines 56-67, referring to FIG. 12, a metric collection and reporting subsystem 510 of the file release control system is shown. System 510 includes a metric collector and reporter 530 (hereinafter referred to as metric collector 530). Stored in a version control subsystem 512 are source files 518, test cases 520, and project file documents 542.

Metric collector 530 generally collects, computes, and reports statistics related to all aspects of the file release control system, for example, during code development, during code inspections, during load building, during testing, during media downloading, etc. A graphical user interface (not shown) may be used to provide a list of available metrics that a user may select from to generate a report. Given the selection of metrics, metric collector 530 then executes a metric tool 532 associated with one or more metric. The metric tools 532 may access a number of sources of information, compute, and generate the desired metric. The metric is then provided to metric collector 530, which generates a printed or on-line report of the selected metrics. The format of the metric reports may also be selected from existing formats or generated by the user).



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Regarding claims 2-4 and 13-15

*Carrier III et al teaches,*

the plurality of versions includes raw program text (column 8, lines 10-19, Many types of metrics may be available and may include: the number of lines of code in a source module, the number of lines changed in a source module, the number of times a source module is modified from build to build, the number of defects fixed in a source module, what defects are fixed in a source module, the number of lines of code underwent a Fagan inspection, the number of lines of code tested, the number of source modules tested, the success or failure of testing, the success or failure of load building, the amount of time to build a particular load, the number of project file documents, etc).

Regarding claims 5-6 and 16-17

*Carrier III et al teaches,*

step of comparing includes a step of finding a ratio using the length of the compressed version of raw program text and the length of the compressed version of normalized program text.

(figures 11-12, column 7, lines 41-55, When a user has completed the source modules, he/she may attach them to one or more release forms and then submit the release forms for a build, in the same manner as described above. When release forms are approved for a build, the

corresponding source modules stored in remote source files database 412 that make up the

release form are tagged with the appropriate build label. The load building process obtains

approved files or source modules from remote version control subsystem 411 to build the load.

Defect tracking for the remote site is performed in a similar manner as described above, where a

build label becomes associated with problem reports. Constructed in this manner, developers

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may be submit source files from one or more remote sites to one local software release control system for load building and defect tracking).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anil Khatri whose telephone number is 571-272-3725. The examiner can normally be reached on M-F 8:30-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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**ANIL KHATRI**  
**PRIMARY EXAMINER**